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Parriaux

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(54) **DEVICE FOR MEASURING TRANSLATION,  
ROTATION OR VELOCITY VIA LIGHT  
BEAM INTERFERENCE**

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**Related U.S. Application Data**

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(58) Field of Search ..... 356/488, 494,  
356/499, 521; 250/231.14, 237 G

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(57) **ABSTRACT**

The device for measuring translation, rotation or velocity includes at least a light source, a light detector, a first grating and a second grating, the first grating being mobile relative to the second grating. A incident beam reaches the first grating where it is diffracted in two beams whose directions are interchanged by the second grating, the resulting beams being then again diffracted by the first grating in an output diffraction direction where they interfere together. Both gratings are used in reflexion.

**33 Claims, 12 Drawing Sheets**

